AMENDMENTS TO THE CLAIMS

Claims 1-3 (Cancelled).

4. (Currently Amended) A genetically altered non-human animal comprising a non-native gene sequence coding for DAX-1, ~~or a fragment, or a derivative, or a variant thereof~~ wherein said non-human animal is a fly or a mouse.

5. (Currently Amended) The genetically altered non-human animal according to claim 4 wherein said ~~non-human animal is a mammal or an invertebrate animal~~ fly is *Drosophila*.

6. (Currently Amended) The genetically altered non-human animal according to claim 4, wherein the expression of said genetic alteration results in said non-human animal exhibiting a predisposition to developing symptoms, ~~and/or~~ or displaying symptoms of ~~neuropathology similar to a neurodegenerative disease~~ Alzheimer's disease.

7. (Currently Amended) The genetically altered non-human animal according to claim 4, wherein the expression of said genetic alteration results in said non-human animal which has a reduced risk of developing symptoms similar to ~~a neurodegenerative~~ Alzheimer's disease, ~~and/or~~ or which shows a reduction of said symptoms ~~and/or~~ or which has no symptoms due to an effect caused by the expression of the gene used to genetically alter said non-human animal.

8. (Currently Amended) A method of developing diagnostics and therapeutics to treat ~~neurodegenerative diseases~~ Alzheimer's disease, comprising screening, testing, or validating compounds, agents, and modulators using the genetically altered non-human animal according to claim 4 as an experimental model for at least one step of the method selected from the group consisting of a screening step, testing step, or validation step.

Claims 9-11 (Cancelled).

12. (Currently Amended) A method of screening for a modulator of Alzheimer's disease of one or more substances selected from the group consisting of

(i) a gene coding for DAX-1,

(ii) a transcription product of a gene coding for DAX-1, and

(iii) a translation product of a gene coding for DAX-1,

said method comprising:

(a) administering a test compound to a test animal which is predisposed to developing or has already developed symptoms of Alzheimer's disease in respect of the substances recited in (i) to (iii);

(b) measuring the activity or level of one or more substances recited in (i) to (iii);

(c) measuring the activity or level of one or more substances recited in (i) or (iii) in a matched control animal which is predisposed to developing or has already developed symptoms of Alzheimer's disease in respect to the substances recited in (i) to (iii) and to which animal no such test compound has been administered; and

(d) comparing the activity or level of the substance in the animals of step (b) and (c), wherein an alteration in the activity or level of substances in the test animal indicates that the test compound is a modulator of Alzheimer's disease, ~~The method according to claim 11~~ wherein said test animal ~~and/or~~ or said control animal is a genetically altered mouse or fly ~~non-human animal~~ which expresses the gene coding for DAX-1~~, or a fragment, or a derivative, or a variant thereof,~~ under the control of a transcriptional control element which is not the native DAX-1 gene transcriptional control element.

Claims 13-19 (Cancelled).

20. (Currently Amended) The genetically altered non-human animal according to claim [[19]] 5 wherein said fly is *Drosophila melanogaster*.

Claims 21-28 (Cancelled).